1638

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/242,843A

DATE: 09/14/2000 TIME: 14:36:05

1440

1500



Input Set : A:\Sequence Listing ('843).txt
Output Set: N:\CRF3\09142000\I242843A.zaw

3 <110> APPLICANT: Jarrett, Paul Ellis, Deborah 5 Morgan, James 7 <120> TITLE OF INVENTION: Pesticidal Agents 9 <130> FILE REFERENCE: 0380-P01838US0 11 <140> CURRENT APPLICATION NUMBER: 09/242,843A C--> 12 <141> CURRENT FILING DATE: 1997-11-18 14 <150> PRIOR APPLICATION NUMBER: PCT/GB97/02284 15 <151> PRIOR FILING DATE: 1997-08-27 17 <150> PRIOR APPLICATION NUMBER: GB 9618083.1 18 <151> PRIOR FILING DATE: 1996-08-29 20 <160> NUMBER OF SEQ ID NOS: 1 22 <170> SOFTWARE: FastSEQ for Windows Version 3.0 24 <210> SEQ ID NO: 1 25 <211> LENGTH: 38258 26 <212> TYPE: DNA ( 27 <213> ORGANISM: Xenorhabdus 29 <220> FEATURE: 30 <221> NAME/KEY: misc\_feature 31 <222> LOCATION: (35499)...(35519) 32 <223> OTHER INFORMATION: n = a or c or g or t 34 <400> SEQUENCE: 1 35 tocacaatty coggagaaaa toagtoggga actgooggtg attattogto acttattaaa 36 cgaatttgcc gaccagaata aggctaaaaa actgctacag gcgcaacgcg actcgaacga 37 agcgttaacg gtaaagagtc attcggatcc gctgtatcgc ttttgtggtt atctggtgtc 120 180 240 38 tgtcaatgat atgaccggaa tgaagatggg caataaaaac attagcccac gagcaccgag 39 attgtacttg tatcatgoct atctctcttt tatggaageg caeggetttg aacgteegtt 300 40 aacactgact aagtttggtg aatccatccc caagattatg ctggaatacc ggaaggagta 360 41 togaaaagtg cgaaccaaga aaggotatto ctataacgtg gaattatogg aagaggooga 420 42 agaatggcta ccgtcagtgc ctgagtgtcg agactttaaa tcacctgtat aaaactttga 480 540 43 gctttaagtc tgcactccat acacaactta aaatatctaa ttgtatttaa aagaaaataa 600 44 tagatgtata gttatttttt aactatacat aagctctaca tgctcttcat tcgtgtaaaa 660 45 aatgggtgaa caggtgatac agtcagtgaa tatcatatta attaccgtaa acccagatgt 720 46 agcaaggctt tcagggaatt gtgcagaggg tgcataactg agagggtgaa aaagattttc 47 aggggggctt atggcaggta aacaaaatca gaagcaaata ccgtgcacaa tctggttttt 780 48 attttttggt actacctcaa attaaaatga tgtaatcatc tgattttatt taagaataga 49 agttaatcac aatttcattg atggactttc attcacactg gtatagataa ataattctgt 900 50 tatatectgt tteattacge atteateagg agtgetgtta caggagacaa gaatgteaca 960 51 catcatttac ttgtcgttaa agggcaagaa gcagggttta atttcagcgg gttgttcaac 1020 52 gcctgaatca attggaaatc gctatcaaaa aggacgtgaa gatcaaatac aggtattgag 1080 53 cctgaatcat tcgatgagcc gtgaccagaa tgttaatcat caacccgtca gttttgtgaa 1140 54 acccattgat aaatcctctc ccctgtttgc tggatgccag ttttgtgcat tacaggacaa 1200 55 gccagatggg acaactggag ttcttttatg aaatcaaget gaccagtgcc acgattgtgg 1260 56 atatttecta taattateeg geatteaate aatgataatg gtgegatace ecatgaagtg 1320 57 gtgatgctcg attataagtc catttcatgc aaccacatcg ccgcaggact tcgggctaca 1380

58 gcatacgcaa ttagccggaa gtgaagaagc aagccgcttt tatctggggt ctcgaatgtt

59 aagccactta agaagccgct ggttgaagaa accccggtaa aacccgctaa acatcatgcc

9/14/00

RAW SEQUENCE LISTING

DATE: 09/14/2000 TIME: 14:36:05 PATENT APPLICATION: US/09/242,843A

Input Set : A:\Sequence Listing ('843).txt
Output Set: N:\CRF3\09142000\I242843A.raw

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61	ctgccggatg	gtcagataaa	agaaggaaag	actgataaac	aaggttacac	ccaatggcat	1620
62	cttacggatg	acaaaaataa	acttgaattt	catattttaa	aggattaata	ccatgccagc	1680
63	ctataccgtt	cagacaaaaa	tagaatccaa	cgtacctgtt	gaaaacctgc	tttacgactt	1740
64	aaccatttat	cgtaaggatg	caaaaggaaa	tttccatatc	ttgcttgatg	tttttcagga	1800
65	gaaactacag	agtaattatg	aaacacaaca	gcatatcacg	caggaaatag	acgacgatct	1860
					catggctcaa		1920
67	ggcactgcaa	acccatttta	agaaaatgta	taccctcggt	gaattaactt	ccggtaaagc	1980
68	ctattcagag	aaaaaacqqq	aaaatgcctg	ttattttgaa	agtacagttg	aaacaaaacc	2040
69	tatcagcgac	ggggataata	ccgttgactt	aaatatcact	attcctgaac	gaccttttat	2100
70	taccaaaqaa	tateceattq	qtcacccaca	cqatccattt	gaaaaaagta	aaattgaatc	2160
					caaaatggag		2220
					gattatctct		2280
73	ttttaatagt	gtttttatcg	aqtqaaattt	aatcqcacaq	gcaattcttt	agacttttat	2340
					ttcaaatatt		2400
					tattgcctgc		2460
76	accadatatt	tatgagcaag	caacacaaaa	attatggcaa	tatggccgaa	ctaaaattgg	2520
77	traactagaa	attaagccag	atasaaatta	ccaacatect	aaaggtactt	tttataatca	2580
78	atatootoaa	agaatatotg	gattagatta	actgacattg	gcaagcctaa	gagattcaga	2640
70	aaatatgatg	atgaggttga	tgatgaagta	actagtatta	caatgtgggg	aaaattgaca	2700
90	gaatgatta	aaaaatcagg	dtatdaaaaa	gtatttagta	atgtcggctt	atcccattct	2760
01	224242224	acatactaac	tettagtgat	tactataaca	aaggatatca	tattattact	2820
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02	tagattagttt	aggaatgtt	actagatett	tatgagaaag	aaaatatcac	aaataattca	2940
0.4	cygatagitt	gggaaggagt	tttaaatoto	ttttcataaa	gtaaagtgga	acatcaaatt	3000
					tttgagggtt		3060
0.5	aaaaaaaaca	aaccaccaga	asstattast	tattttatt	tttttacttt	ataattataa	3120
					cctgatgcag		3180
					aatgaaaaaa		3240
90	accatateay	geaceaacea	ccaccacagg	atgastoca	aaagatagtt	ctttcctata	3300
00	addaticat	cctactggct	caggactaac	tastastata	aatataacag	ataccccaaa	3360
90	gggtggaaaa	adayadacaa	ttanagacta	aggatttaga	ttgggtacaa	tatagagaga	3420
					taattgtcac		3480
							3540
93	gtgatttaat	tegecattt	tatactitity	tataceccc	caacataatc	ttaataaaat	3600
					ataaattaag		3660
95	aaattatctg	cartactgrr	ataategata	acacgataac	ctgactttct	actogottta	3720
					cattgcaacc		3780
					tactcatgct		3840
					tccgggttat		3900
					tgccggaggc		3960
						g tecetgaegt	4020
						c gaataccctg	4080
						g cgcaataaaa	4140
						a cagtcaggac	4200
						a acacgctgtt	4260
						t tagagccggt	4260
10	b ggccagacaa	a gggacaacc	g cctgacatt	t ttagtgttg	g ataatgcgc	g tatccatcac	
10	7 gggatagagg	g aaaaaatca	g aaatggcgg	g tgacgagaa	c acaacctgt	t tttattctat	4380
10	B cttcccgct1	t acagcccaga	a gctgtatct	g attgaaatc	g tctggaaac	a ggccaaatac	4440

RAW SEQUENCE LISTING

DATE: 09/14/2000 TIME: 14:36:05

PATENT APPLICATION: US/09/242,843A

Input Set : A:\Sequence Listing ('843).txt
Output Set: N:\CRF3\09142000\I242843A.raw

109	gactggcgac	gttttatcac	ctggactcag	gatacaatgg	aatatgaggt	aaatacttta	4500
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111	gtcagtcgag	gttttttcat	ttcgggtcgt	ggggatgata	ctgaaaattt	gtttgtaatc	4620
112	tctgaaaatt	gctgtttctg	tggctacgtc	tgtcttttgg	gatattgttt	ccatcaagtc	4680
113	tgtcaacata	ctgttaagtt	agatgttgat	aaaagagact	gaattataat	acaaaacaat	4740
114	aaatcacttg	gacaatattt	tatttcacat	gagacattaa	ggttgatttt	cccaatctgg	4800
115	tcagttataa	ccgaataagg	atcttgaaaa	atcatqqqat	cttactttta	tcaaatgaag	4860
116	ttaacgtaaa	agttgataaa	gaaaattatt	taattctaag	taccattage	ataaatattt	4920
117	tgtgttttgt	taatgaatga	ataaccaggt	aagctggatt	ttcattttt	aattactcgt	4980
118	tacaatatgc	tatttattta	tataaagagt	ttgtgcccat	ttaaccagta	aacaaatttg	5040
119	ttcaaccgta	acttagette	atcgactttt	gacctcacct	ggtcagaatc	tagggccgtt	5100
120	atcctattta	tttatgataa	ataaaattta	attatettta	ataaqctqaa	tatgtggatt	5160
121	tgtgctcaat	cttggattca	agtatgtatt	ccttttggta	ccctgcttta	ttttaaggca	5220
122	gatgaagagg	ataccaacat	gacacaatat	cgattacgac	totaacatta	aagtcagtta	5280
122	taaattttat	gattaaaatg	aaattttagt	agaaaatcgt	attctattcc	gccatttaca	5340
124	atagcatcct	ctttaatatc	attaatctca	gataaaacaa	ataattacaa	totoaataga	5400
125	ataatgactt	acaaaataan	cactagatet	tcagatgaac	tettaaetga	caacactatt	5460
125	ttataaaata	attgaggtta	ttatgtatag	caccactata	ttactcaata	aaatcagtcc	5520
127	cactegegae	actgaggeea	taactettac	ggatctgcaa	tatttatcct	tcagtgaact	5580
120	gagaaaaatc	tttgatgacga	ageteagttg	gggagaggct	cgccatctct	atcatgaaac	5640
120	tatagagcag	aaaaaaaata	atracttact	ggaagcgcgt	atttttaccc	gtgccaaccc	5700
120	acaattatcc	agtactatec	gactcogtat	tgaacgagac	agcotttcac	gcagttatga	5760
131	tgaaatgttt	ggtgccatt	cttcttcctt	tataaaacca	ggttcagtgg	cttccatqtt	5820
137	ttcaccggct	ggcgcccgcc	cccaattata	tcataaaaca	aaggacttac	atttttcaag	5880
132	ctctgcttat	gatettgata	atcaccatco	ggatctggct	gatetgaete	tgagccagag	5940
134	taatatggat	acacacattt	ccaccetgac	actototaac	gaartgttgc	tggagctatt	6000
125	acccgcaaga	coggagataa	ttcggacgca	ttgatggaga	acctatcaac	ttaccgtcag	6060
136	gccattgata	ccccttacca	tragrettar	gagactatee	gtcaggtcat	tatgacccat	6120
127	gacagtacac	tataaaaaat	ctcccctaat	cctgaggtga	tagaggagg	ggaagggct	6180
130	tcattactgg	casttotaac	caatatttct	ccagaggega	ataacatttt	gaccgaagag	6240
130	attacggaaa	agaziczege	tactttattt	acacaaaact	tcagtgaaaa	tatcacaccc	6300
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140	caaaaatacc	toggcacaatatt	acagaataac	tattctgaca	gcacctctgc	ttatgtggat	6420
141	aatatctcaa	caggtttagt	gcaydatggc	gazagtazac	traaaactta	caaaataaca	6480
142	cgtgtaaaaa	cagatratta	trataaarat	gaaagtaact	ttgatctgat	gtatgaagga	6540
143	aataatcaat	tatttatata	tantanttt	aagatatoga	gagaatttgg	gacgactett	6600
144	aggaaaaact	cocciacacy	tagcattatc	aggacaccttt	ccaatcccct	ggtagccaat	6660
145	actaatttca	cagggacaag	cttaactaac	atatotoata	atgaatacag	aaatggcgta	6720
140	aaaatatatg	adaycaacca	tacatattac	accaccocca	casatcagg	caacaaata	6780
147	ttcacttttg	cctategera	catgettett	tttggggtca	aactgaataa	agccattcgc	6840
148	ttgtgcctga	agicilatic	ttoaccast	gaactgcaaa	ctatcataca	cagtgacaat	6900
149	gcacaaggca	testesses	atocattota	acceaeattt	totatactot	attetacaat	6960
150	caccettate	ccaccaacga	tastastas	naggtagtag	acquatcqqt	cattaatcaa	7020
121	caccyttaty	cactgagett	tanatanta	taaggtactga	t++==+=0cc	caccactaaa	7080
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153	tacctttgcc	cityaayeeg	tastacatas	totagoatt	aacantnoto	aactgtatca	7200
154	gttaggcaaa	egiteagece	tattagagag	2023234240	ctcacacttt	ctatccctat	7260
722	tatatettea	erggegggrg	torogttrat	acaaaatate	catcacctca	caattaataa	7320
T20	Latatettea	cigialogee	tttogggggtt	ggeeegegee	acaacaact+	ctttatcttc	7380
12/	actgtgtatg	ctttatggtt	LLLCGCCGTT	caatyycada	acaacygott	- cregiones	, 550

RAW SEQUENCE LISTING

DATE: 09/14/2000 TIME: 14:36:05

PATENT APPLICATION: US/09/242,843A

Input Set : A:\Sequence Listing ('843).txt
Output Set: N:\CRF3\09142000\I242843A.raw

			ttatctggtt				7440
			atctggttat				7500
			cttaatactc				7560
161	aaagtagtga	ccgggagctt	caggctgaaa	ttctcgcgcc	gtttattgct	gcaacgctgc	7620
			gcgcggtata				7680
			tttatgatgc				7740
			ttctgccatg				7800
165	cactgcgtct	cagtgaagca	gagctttctg	tgctggtcat	ttccgatttt	gtggtactgg	7860
166	gtgcgagaag	ccaaccgccg	gacaacacaa	tattgatact	ctgttctcac	tctaccgatt	7920
167	ccaccagtgg	attaatgggc	tgggaaatcc	cggctctgac	acgctggata	tgctgcgcca	7980
168	agcagacact	cacgggcgac	agactgggcc	tccgtgatgg	ggctggacat	cagtatggta	8040
			ccggcgtgaa				8100
			tggcatcagc				8160
			gtgactgcat				8220
			gcagaaaata				8280
			gcagagcgcc				8340
			gtgtccctgc				8400
			tctgccataa				8460
176	gtattcagct	ctacatcaac	cgggcgctga	accggataga	gcctaatgcc	cgtgccgatg	8520
			accgactgga				8580
			tatccggaaa				8640
179	agacccggat	gatggatgaa	ctgctggaag	atatcagcca	gagtcagctc	agccgggaca	8700
			acttacctga				8760
181	tgtcagcgct	atcaccgaca	acgtcaacag	caacaccgga	ctgacctggt	ttgtcggcca	8820
			aatattactg				8880
			cctggaaaga				8940
			cggtcatatt				9000
			aatggtactg				9060
			catgatggca				9120
			actgacaaaa				9180
			gatactctgc				9240
			aataaaaatg				9300
			acagcactca				9360 9420
			acgacttggt				9420
			tgaatatggg				9480
			cgcagataac				9600
			tcactgtcag				9660
			aactgacggg				9720
			taaacattat				9780
			aaaactatat				9840
			ttctaacacc				9900
			acacaatttt gcagttatgc				9960
							10020
			catccggctg				10020
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			acagttttga cctttaccaa				10200
			gagtgctggg				10260
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200	yylaaallal	aaccoyyaay	acaccccycc	ccigcycyaa	acceatings	gegeecaaca	10320

RAW SEQUENCE LISTING DATE: 09/14/2000 PATENT APPLICATION: US/09/242,843A TIME: 14:36:05

Input Set : A:\Sequence Listing ('843).txt
Output Set: N:\CRF3\09142000\I242843A.raw

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208	cagagcaaac	acgggcattg	atactatcct	gacaatggaa	acccagcggt	taccggaacc	10440
209	tecattagga	gaaggettet	ttgccaactt	tgttctgcct	aaatatgacc	ctgctgaaca	10500
210	tagcaatgag	caataatta	aaatccatat	cgggaatgtt	ggcggtaaca	cgggaaggca	10560
211	geettattae	agcggaatgt	tatccgatac	gtcggaaacc	agtatgacac	tgtttgtccc	10620
212	ttatgccgaa	gggtattaca	tqcatqaagg	tgtcagattg	ggggttggat	accagaaaat	10680
213	tacctatgac	aacacttggg	aatctgcttt	cttttattt	gatgagacaa	aacagcaatt	10740
214	tgtattaatt	aacgatgctg	atcatgatto	aggaatgacg	caacagggga	togtgaaaaa	10800
215	tatcaagaaa	tacaaaggat	ttttgaatgt	ttctatcgca	acgggctatt	ccgccccgat	10860
216	ggatttcaat.	agtgccagcg	ccctctatta	ctgggaatgt	tctattacac	cccgatgatg	10920
217	tacttccage	gtttgctaca	qqaaaaacaa	ttcgacgaag	ccacacaatg	gataaactac	10980
218	gtctataatc	ccgccggcta	tatcgttaac	ggagaaatcg	cccctqqat	ctggaactgc	11040
219	caaccactaa	aagagacact	cctggaatgc	caatccgttg	gatgccattg	atccggatgc	11100
220	catcacacaa	tatgacccga	cacactataa	agttgccacc	tttatqcqcc	tgttggatca	11160
221	acttattctq	cacaacaata	tgacctatcg	cgaactgacc	cacaatacat	tgaatgaagc	11220
222	caagatgtgg	tatatacata	ctttggaatt	gctgggtgat	gagccggagg	attacggcag	11280
223	ccaacagtgg	gccgcaccgt	ctctttccqt	ggcgggcaac	cacactatac	aaqcqqqcta	11340
224	tcaacaagag	cttacagcac	tagacaacgg	agaaggttgc	actcaacccc	gcaacgctaa	11400
225	ctcattagta	atttaateet	gccggaatat	aacccggaat	caaccgatta	ctggcaaacc	11460
226	tacatttaca	cctggttaac	ctgcgccata	atccttccat	gacgggcaac	cattateget	11520
227				cgctgctcac			11580
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229	aggaggaggag	caatctggta	gcgcaattaa	cccagttcgg	cacctctctq	ctcagtatgg	11700
230	canancatna	tgatgccgat	gaactcacca	cgttgctact	acagcagggt	atqqaactqq	11760
230	caacacaaaa	catccgtatt	cagcaacgaa	ctgtcgatga	agtggatgct	gatattgctg	11820
237	tattoocaga	dadccaccac	agtgcacaaa	atcgtctgga	aaaataccag	cagctgtatg	11880
232	acqaqqatat	dagoogoogo	gaacagcgtg	cgatgtcact	gtttgatgcg	gcggcaggtc	11940
234	agtetetage	caaacsaaca	ctctcagtag	cagaaggggt	ggctgactta	gttccaaacg	12000
235	tattcaattt	cacttataac	ggcagtcgtt	ggggggcagc	actocotoct	tecqeetecq	12060
235	tgatgtcgct	ttctcccaca	gcttcccaat	attccgcaga	caaaatcagc	catteggaag	12120
237	cotacogoo	ccaccatcaa	gagtgggaaa	ttcagcgtga	taatgctgac	ggtgaagtca	12180
237	aacaaatgga	tacccaacta	gaaageetga	aaatacgcgg	cgaagcagca	cagatgcagg	12240
230	tagaatatca	agagacccag	caggeceata	ctcaggctca	gttagagctg	ttacagogta	12300
240	aattcacaaa	caaagcoctt	tacagttgga	tgcgcggcaa	gctgagtgct	atctattacc	12360
2/11	agttetttga	cctaacccaa	tecttetace	tgatggcaca	ggaagcgctg	caccacaaac	12420
				gtggggcctg			12480
242	taataacaaa	tgaaacgttg	ctactaaatc	tggcagaaat	ggaaaaaagtc	tagctagage	12540
243	ataataaaca	ggcactggaa	gtgacccgta	ccgtctcgtt	ggcacagttc	tatcaggeet	12600
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245	acaacataaa	agetteegge	aatgaattaa	aactcagtaa	ccaccagata	gaageeteag	12720
240	tacaattata	tgatttgaaa	attttcagcg	ataccccgga	aagetttgge	aatacccqtc	12780
247	anttmaaaca	agtgagtgtc	accttaccaa	cgctggttgg	tecetateaa	gatateeggg	12840
240	caatactass	ttacaacaac	agcatcgtca	tgccacgcgg	ttgcagtgct	attectet	12900
250	cocacaacat	gaatgacagt	ggtcaattta	tgctggattt	caacgattcc	cgttatctgc	12960
250	catttaaaa	tatttccctc	aatgacagcg	gtagcctgac	attaaattto	ccggatgcga	13020
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252	ccattcattc	ttaattaaaa	cattgtgata	ggcaggctcc	tgagggagg	tgtttaagga	13140
251	attttataa	aggetteaac	acctttgaaa	cttgaaatac	catcattacc	ctctgggggc	13200
255	gatcactaa	aaggaatggg	agaagcacto	aatgccgtcg	dadcadaaaa	ggagcgtcat	13260
200	ggaccaccaa				J-9-99-499	,,-,-,-,-,-	

FYI

## Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

DATE: 09/14/2000

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/242,843A

TIME: 14:36:07

Input Set : A:\Sequence Listing ('843).txt
Output Set: N:\CRF3\09142000\I242843A.raw

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:626 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1